

CLAIMS

I claim:

1. An anaerobic digester comprising:

a cylindrical vessel having an internal partition defining an orbicular loop passage and a
5 inner chamber;

the loop passage having a first circumferential end and a second circumferential end;

means of communicating waste into the first circumferential end without introducing

ambient air to the vessel;

means of allowing solid waste to leave the second circumferential end without introducing
10 ambient air to the vessel;

means of conducting liquid waste from the second circumferential end to the inner chamber;
and

means of removing liquid from the vessel.

2. An anaerobic digester comprising:

a vessel having a cylindrical outer wall and having an internal partition defining an orbicular
15 loop passage and an inner chamber;

the loop passage having a first circumferential end and a second circumferential end;

a waste loading chute proximate the first circumferential end and communicating with the
loop passage;

an effluent basin extending from the vessel at the second circumferential end and
20 communicating with the loop passage;

the waste loading chute and effluent basin configured to create a vessel air lock when filled
with waste; and

a liquid conduit connecting the effluent basin and the inner chamber.

- 25 3. An anaerobic digester according to claim 2, and wherein:

the internal partition includes a spillway opening allowing communication between the loop
passage and the inner chamber.

4. An anaerobic digester according to claim 2, and wherein:

the conduit includes pump.

- 30 5. An anaerobic digester according to claim 2, and wherein:

the inner chamber includes biofilm media.

6. An anaerobic digester according to claim 2, and further comprising:
a vertically oriented manifold mounted within the effluent.